

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2020/2021

DBM5624 – PRINCIPLE OF FINANCE

(For Diploma Students Only)

28th OCTOBER 2020

9.00 a.m – 11.00 a.m

(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 9 pages (excluding the cover page and appendix) with 2 sections.
2. For Section A, shade your answers on the OMR form provided.
3. For Section B, write your answers in the answer booklet provided.
4. The formulae are given in the appendices.
5. Answer ALL questions.

SECTION A: Multiple Choice Questions (30 Marks)

1. Which one of the following is a noncash payment made by a firm to its shareholders and is a payment that lessens the value of each outstanding share?
 - A. Stock split.
 - B. Cash distribution.
 - C. Cash dividend.
 - D. Regular dividend.
2. Which one of the following increases the number of shares outstanding but does not increase the value of owners' equity?
 - A. Stock repurchase.
 - B. Reverse stock split.
 - C. Stock split.
 - D. Cash distribution.
3. Which one of the following dates is the date on which the board of directors votes to pay a dividend?
 - A. Record date.
 - B. Declaration date.
 - C. Ex-dividend date.
 - D. Payment date.
4. Which one of the following **BEST** defines a regular cash dividend?
 - A. Distribution by a firm to its shareholders.
 - B. Payment from any source by a firm to its owners.
 - C. One-time payment of cash by a firm to its shareholders.
 - D. Cash payment by a firm to its owners as part of a firm's normal operations.
5. The ex-dividend date is defined as _____ day(s) before the date of record.
 - A. three business
 - B. three
 - C. two business
 - D. two

Continued...

6. The clientele effect states that investors fall into various groups because of differences in their preferences for which one of the following?
- A. Dividends.
 - B. Risk level.
 - C. Share price levels.
 - D. Rates of return.
7. Which one of the following would tend to favour a low dividend payout?
- A. Higher tax rates on capital gains than on dividend income.
 - B. High flotation cost for equity issues.
 - C. Endowment fund investors who cannot spend principal.
 - D. Investors' desire for a high-dividend yield.
8. The value of the stock is based on the _____ of expected future dividends.
- A. future value
 - B. current value
 - C. present value
 - D. history value
9. Of the following, which two are the **BEST** reasons for doing a reverse stock split?
- I. Return a stock to its normal trading range.
 - II. Eliminate small shareholders.
 - III. Reduce shareholder costs.
 - IV. Avoid delisting.
- A. I and II
 - B. I and III
 - C. II and III
 - D. II and IV
10. On which one of the following dates are dividend checks mailed?
- A. Date of record.
 - B. Ex-dividend date.
 - C. Payment date.
 - D. Declaration date.

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11. Sui Ling owns 100 shares of CIMBee stock. Which one of the following terms is used to refer to the return that Sui Ling and the other shareholders require on their investment in CIMBee?
- A. Weighted average cost of capital.
 - B. Pure play cost.
 - C. Cost of equity.
 - D. Subjective cost.
12. Esther lent money to Bumblebee Store by purchasing bonds issued by the store. The rate of return that she and the other lenders require is referred to as the _____.
- A. pure play cost
 - B. cost of debt
 - C. weighted average cost of capital
 - D. subjective cost
13. The weighted average cost of capital is defined as the weighted average of a firm's _____.
- A. cost of equity and its aftertax cost of debt.
 - B. return on its investments.
 - C. pretax cost of debt and equity securities.
 - D. bond coupon rates.
14. Which of the following features are advantages of the dividend growth model?
- I. Easy to understand.
 - II. Model simplicity.
 - III. Constant dividend growth rate.
 - IV. Model's applicability to all common stocks.
- A. I and II only
 - B. I and III only
 - C. II and IV only
 - D. II only
15. The cost of preferred stock _____.
- A. increases when a firm's tax rate decreases.
 - B. is constant over time.
 - C. is unaffected by changes in the market price.
 - D. is equal to the stock's dividend yield.

Continued...

16. Which one of the following represents the rate of return a firm must earn on its assets if it is to maintain the current value of its securities?
- A. Cost of equity.
 - B. Internal rate of return.
 - C. Aftertax cost of debt.
 - D. Weighted average cost of capital.
17. Andrew's Boutique just paid an annual dividend of RM1.65 on its common stock. The firm increases its dividend by 2.5 percent annually. What is the rate of return on this stock if the current stock price is RM38.20 a share?
- A. 6.93 percent.
 - B. 7.37 percent.
 - C. 7.54 percent.
 - D. 8.19 percent.
18. Ari Equipment Sdn. Bhd. announced this morning that its next annual dividend will be decreased to RM1.80 a share and that all future dividends will be decreased by an additional 1.5 percent annually. What is the current value per share of this stock if the required return is 16.5 percent?
- A. RM8
 - B. RM10
 - C. RM12
 - D. RM14
19. The Cream Cracker has a beta of 0.98, a dividend growth rate of 3.2 percent, a stock price of RM33 a share, and an expected annual dividend of RM1.06 per share next year. The market rate of return is 11.2 percent and the risk-free rate is 3.7 percent. What is the firm's cost of equity?
- A. 7.74 percent.
 - B. 8.73 percent.
 - C. 9.30 percent.
 - D. 9.72 percent.
20. Which of the following is the correct way to calculate cost of preferred stock?
- A. $R_p = D/P_o$
 - B. $R_p = D(1-T_c)/P_o$
 - C. $R_p = (D \times \beta)/P_o$
 - D. $R_p = D/P_o - g$

Continued...

21. Wei Hong company generally holds RM125,000 in cash in case an unexpected investment opportunity arises. Which one of the following refers to holding cash for this type of purpose?
- A. Precautionary motive.
 - B. Opportunistic motive.
 - C. Speculative motive.
 - D. Reserve motive.
22. Which one of the following is the need to hold cash simply as a financial reserve?
- A. Precautionary motive.
 - B. Opportunistic motive.
 - C. Speculative motive.
 - D. Activity motive.
23. The transaction motive for holding cash refers to the need to have cash for which one of the following purposes?
- A. Safety margin.
 - B. Investment opportunities.
 - C. Daily operations.
 - D. Financial reserve.
24. Which one of the following is the process of determining the probability that customers will not pay?
- A. Credit analysis.
 - B. Collection policy.
 - C. Account aging.
 - D. Credit terms.
25. Which one of the following terms refers to the length of time a firm grants its customers to pay for their purchases?
- A. Lockbox period.
 - B. Discount period.
 - C. Credit period.
 - D. Cash cycle.
26. What is the primary purpose of a cash discount?
- A. Customer compensation for an out-of-stock item.
 - B. Customer compensation for faulty goods or services.
 - C. Means of offsetting the interest charges on an account receivable.
 - D. Encouragement to pay immediately.

Continued...

27. Which one of the following terms refers to the basic factors that are reviewed when evaluating the creditworthiness of a potential customer?
- A. Terms of sale.
 - B. Cash concentration.
 - C. Five Cs of credit.
 - D. Collection policy.
28. ShuFen Sdn Bhd grants credit with terms of 15/10, net 60. ShuFen's customers entitle to receive a _____ percent discount if they pay within _____ days.
- A. 10; 15
 - B. 15; 10
 - C. 15; 60
 - D. 10; 60
29. Which one of the following is a special post office mailbox that is used to speed up the collection of accounts receivable payments?
- A. Separation box.
 - B. Cash box.
 - C. Concentration account.
 - D. Lockbox.
30. Which one of the following is the bill given to a customer for goods he or she purchased?
- A. Account aging.
 - B. Invoice.
 - C. Docket.
 - D. Remittance advice.

(Total: 30 marks)

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SECTION B: Structured Questions (70 Marks)**QUESTION 1**

The Tok Tik Sdn. Bhd gathered the following condensed data :

	2017 (RM)	2018 (RM)
Sales	4,203	4,507
Cost of Goods Sold	2,422	2,633
Depreciation	785	952
Interest	180	196
Dividends	225	250
Current assets	2,205	2,429
Net fixed assets	7,344	7,650
Current liabilities	1,003	1,255
Long-term debt	3,106	2,085
Tax (%)	35%	35%

Based on the above information for Tok Tik Sdn. Bhd.,

- i) Prepare an income statement for the year ended 2018. (5.5 marks)
- ii) Calculate :
 - a. Cash flow from assets. (8 marks)
 - b. Cash flow to creditors. (1.5 marks)

(Total: 15 marks)

QUESTION 2

- a) Lam Li Yuan is scheduled to receive RM7,500 in four years. When she receives it, she will invest it for seven more years at 7.5 percent per year. How much will Li Yuan have in eleven years? (3 marks)
- b) 5 years from now Superstar Industries will need RM 500,000 to replace some equipment. Currently, the firm has some extra cash and would like to establish a savings account for this purpose. The account pays 5.25 percent interest, compounded annually. How much money must the company deposit today to fully fund the equipment purchase? (3 marks)
- c) Liew Li Yong's grandfather started his own business 30 years ago. He opened a savings account and contributed RM X. Every year since then, he faithfully saved another RM X. His savings account has earned an average rate of 0.45 percent annually. Today, his account is valued at RM200,000. How much did her grandfather save every year? (5 marks)

Continued...

- d) Ng Zi Herng can afford car payments of RM 235 a month for 48 months. The bank will lend him money to buy a car at 7.75 percent interest. How much money can he afford to borrow? (4 marks)

(Total: 15 marks)

QUESTION 3

Pearl company is reviewing one project with the initial investment of RM25,000. The required return is 15 percent. The company is expected to receive cash flow every year from the project as below:

	Year 1	Year 2	Year 3
Cash flow	RM10,000	RM8,000	RM20,000

Based on the above information, calculate:

- (a) The payback period. (2 marks)
- (b) The net present value. (5.5 marks)
- (c) The profitability index. (5.5 marks)
- (d) Should Pearl company accept the project? Why? (2 marks)

(Total: 15 marks)

QUESTION 4

- a) Wan Yee Corporation is expected to pay the following dividends over the next four years: RM5, RM12, RM18, and RM1.80. Afterward, the company pledges to maintain a constant 4 percent growth rate in dividends, forever. If the required return on the stock is 14 percent, what is the current share price? (8 marks)
- b) Bara Bara Toys just paid its annual dividend of RM1.40. The required return is 8 percent and the dividend growth rate is 1 percent. What is the expected value of this stock five years from now? (4 marks)
- c) Uithiswary Store increases its annual dividend by 1.5 percent annually. The stock sells for RM 28.40 a share at a required return of 14 percent. What is the amount of the last dividend this company paid? (3 marks)

(Total: 15 marks)

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QUESTION 5

- a) A bond has a RM 1,000 face value, a market price of RM1,045, and pays interest payments of RM80 every year. What is the coupon rate? (2 marks)
- b) A 10 percent bond has a yield to maturity of 8.5 percent. The bond matures in eight years, has a face value of RM 1,000, and pays quarterly interest payments. What is the amount of each coupon payment? (2.5 marks)
- c) Tee Yi Ying Corporation bonds have a face value of RM1,000. The bonds carry a 8 percent coupon, was issued two years ago and have 18 years left until maturity. Calculate the current price of these bonds if the yield to maturity is 7 percent. (5.5 marks)

(Total: 10 marks)

[Total: 70 marks]

End of Paper

Appendices

I. The cash flow identity

Cash flow from assets = Cash flow to creditors (bondholders)
+ Cash flow to stockholders (owners)

II. Cash flow from assets

Cash flow from assets = Operating cash flow
– Net capital spending
– Change in net working capital (NWC)

where

Operating cash flow = Earnings before interest and taxes (EBIT)
+ Depreciation – Taxes

Net capital spending = Ending net fixed assets – Beginning net fixed assets
+ Depreciation

Change in NWC = Ending NWC – Beginning NWC

III. Cash flow to creditors (bondholders)

Cash flow to creditors = Interest paid – Net new borrowing

IV. Cash flow to stockholders (owners)

Cash flow to stockholders = Dividends paid – Net new equity raised

I. Symbols

PV = Present value, what future cash flows are worth today

FV_t = Future value, what cash flows are worth in the future

r = Interest rate, rate of return, or discount rate per period typically , but not always, one year

t = Number of periods typically , but not always, the number of years

C = Cash amount

II. Future value of C invested at r percent per period for t periods

$FV_t = C \times (1 + r)^t$

The term $(1 + r)^t$ is called the *future value factor*.

III. Present value of C to be received in t periods at r percent per period

$PV = C / (1 + r)^t$

The term $1 / (1 + r)^t$ is called the *present value factor*.

IV. The basic present value equation giving the relationship between present and future value is

$PV = FV_t / (1 + r)^t$

I. Finding the value of a bond

$$\text{Bond value} = C \times [1 - 1/(1 + r)^t]/r + F/(1 + r)^t$$

where

C = Coupon paid each period

r = Rate per period

t = Number of periods

F = Bond's face value

II. Finding the yield on a bond

Given a bond value, coupon, time to maturity, and face value, it is possible to find the implicit discount rate, or yield to maturity, by trial and error only. To do this, try different discount rates in the formula above until the calculated bond value equals the given bond value. Remember that increasing the rate *decreases* the bond value.

I. The cost of equity, R_E

A. Dividend growth model approach (from Chapter 7):

$$R_E = D_1/P_0 + g$$

where D_1 is the expected dividend in one period, g is the dividend growth rate, and P_0 is the current stock price.

B. SML approach (from Chapter 11):

$$R_E = R_f + \beta_E \times (R_M - R_f)$$

where R_f is the risk-free rate, R_M is the expected return on the overall market, and β_E is the systematic risk of the equity.

II. The cost of debt, R_D

A. For a firm with publicly held debt, the cost of debt can be measured as the yield to maturity on the outstanding debt. The coupon rate is irrelevant. Yield to maturity is covered in Chapter 6.

B. If the firm has no publicly traded debt, then the cost of debt can be measured as the yield to maturity on similarly rated bonds (bond ratings are discussed in Chapter 6).

III. The weighted average cost of capital, WACC

A. The firm's WACC is the overall required return on the firm as a whole. It is the appropriate discount rate to use for cash flows similar in risk to the overall firm.

B. The WACC is calculated as:

$$\text{WACC} = (E/V) \times R_E + (D/V) \times R_D \times (1 - T_C)$$

where T_C is the corporate tax rate, E is the *market* value of the firm's equity, D is the *market* value of the firm's debt, and $V = E + D$. Note that E/V is the percentage of the firm's financing (in market value terms) that is equity, and D/V is the percentage that is debt.

I. The general case

In general, the price today of a share of stock, P_0 , is the present value of all of its future dividends, D_1, D_2, D_3, \dots :

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \frac{D_3}{(1+R)^3} + \dots$$

where R is the required return.

II. Constant growth case

If the dividend is constant and equal to D , then the price can be written as:

$$P_0 = \frac{D}{R}$$

If the dividend grows at a steady rate, g , then the price can be written as:

$$P_0 = \frac{D_1}{R - g}$$

This result is called the *dividend growth model*.

III. Nonconstant Growth

If the dividend grows steadily after t periods, then the price can be written as:

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \dots + \frac{D_t}{(1+R)^t} + \frac{P_t}{(1+R)^t}$$

where

$$P_t = \frac{D_t \times (1+g)}{(R-g)}$$

IV. Valuation Using Multiples

For stocks that don't pay dividends (or have erratic dividend growth rates), we can value them using the PE ratio and/or the price-sales ratio:

$$P_t = \text{Benchmark PE ratio} \times \text{EPS}_t$$

$$P_t = \text{Benchmark price-sales ratio} \times \text{Sales per share}_t$$

V. The required return, R , can be written as the sum of two things:

$$R = D_1/P_0 + g$$

where D_1/P_0 is the *dividend yield* and g is the *capital gains yield* (which is the same thing as the growth rate in dividends for the steady growth case).